CURRICULUM 21 – NOTES

**Chapter 1: A New Essential Curriculum for a New Time**

* *Understanding by Design* – stop, reflect and make intelligent choices and to engage in “backward design” by beginning with the end in mind.
* Schools currently reflect the factory model of organization
* “Standards, not standardization” – latitude to help individual learners reach proficiency targets
* Educators fell that teaching to the test is what counts
* “There is a strong negative correlation between the proportions of students meeting the states’ proficiency standards and the NAEP score equivalents to these standards suggesting that the observed heterogeneity in states’ reported percents proficient can be largely attributed to differences in the stringency of their standards”
* Some states have lower standards than others in order to meet NCLB expectations
* Committees have developed potential national standards in reading and mathematics.
* Developing a set of global competencies for potential adoption by the states
* United States views education as a state area of focus
* Local school boards have exceptional power over the direction an individual school will take
* Goals that other school districts have set to ensure that new standards are accomplished:
* Address global perspectives
* Employ 21st century digital and networking tools
* Identify salient interdisciplinary linkages for real world applications
* Portfolio requirement for graduation
* Common internet-based program with infrastructure for communication
* Essential curriculum will replace dated content, skills and assessments
* Key structures that currently affect curriculum:
* Schedule (short and long term)
* Way we group learners
* Personnel configurations
* Use of space
* Myths – we operate on beliefs and values
* Good old days are good enough
* We are better off if we all think alike and not too much
* Too much creativity is dangerous and the arts are frills

**Additional Information:**

Websites:

http://tmh.floonet.net/books/commoften/mainrpt.html

**Chapter 2: Upgrading the Curriculum: 21st Century Assessment Types and Skills**

* Modernizing **is not** using a computer instead of a typewriter and calling it innovation
* Modernizing **is** replacing existing practices
* Key word: **REPLACE** not integrate
* Curriculum has three basic elements:
  + Content
  + Skills
  + Assessments
  + The best place to begin replacing is with assessments
  + Curriculum mapping is an easy-to-use tool for differentiating instruction
  + Upgrading assessment types:
* Assessment type = form of the product or performance selected to show student learning
* Product = varied based on the assignment
* Steps to upgrading assessment:
  + Develop a pool of assessment replacements
  + Teachers work with IT members to identify existing types of software, hardware and internet-based capabilities within their school/district
  + Replace a dated assessment with a modern one
  + Share the assessment upgrades formally with colleagues and students
  + Insert ongoing sessions for skill and assessment upgrades in the school calendar
* Knowledge base and tools for communicating have grown
* New tools give new forms to convey ideas
* Business, Political and cultural institutions are partners with schools in emphasizing the importance of shared proficiencies
* Key: translate skills into highly discrete classroom applications connected to the assessment types and to the curriculum content
* Begin: go through deliberate and formal work of identifying new options and working to target replacements
* Align skills to critical content and assessment types

**Additional Information:**

Text:

*Mapping the Big Picture: Integrating Curriculum and Assessment*

**Chapter 3: Upgrading Content: Provocation, Invigoration, and Replacement**

* Three Key Questions:
  + What content should be kept?
  + What content should be cut?
  + What content should be created?
* Content = selected subject matter taught by the teacher or self-taught by the learner
* Content = knowledge we wish to impart and to investigate within the time allowed
* Fundamental content questions:
  + What is essential and timeless?
  + What is not essential or dated?
  + What should be created that is evident and necessary?
* Content entries to consider:
  + A global perspective
  + A personal and local perspective
  + The whole child’s academic, emotional, physical and mental development
  + The possibility for future career and work options
  + The disciplines are viewed dynamically and rigorously as growing and integrating
  + Technology and media are used
  + The Complexity of the content is developmentally matched to the age and stage of the learner
* Goal: replacing dated content with dynamic and current material
* Key: grapple with content choices by challenging the status quo
* Guiding questions:
  + Within the discipline being reviewed, what content choices are dated and nonessential?
  + What choices for topics, issues, problems, themes, and case studies are timely and necessary for out learners within disciplines?
  + Are the interdisciplinary content choices rich, natural and rigorous?
* Social Studies:
  + Whose history will we leave out?
  + Which communities should we study in depth?
  + Combining six sub disciplines into groups makes the curriculum richer:
    - Geography
    - History
    - Anthropology
    - Sociology
    - Economics
    - Political science
* Should include ongoing injections and use of geography and a full range of maps
* Are students in the US being prepared for the present and the future of politics and the economy?
* Students should examine their roots and their relationship to present-day realities
  + State history:
    - Focus on your state and its role in American history
    - Make the state’s perspective more personal
    - Keep an ongoing view of global connections in both local and national history
    - Students should study immediate situations anchored in relevant lessons of the past
* Science:
  + Based on critical and timely problems
  + Elementary and middle school teachers can use programs developed by some national science organizations
  + Active Physics
  + Intersections between morals and beliefs should be handled directly and respectfully
  + All of science starts with the human mind and idea
  + Engaging learners in a lab is the “hands-on” part but the “minds on” is a greater challenge
  + Rethink how scientific knowledge can be integrated into the curriculum and couple that integration with ongoing experience
* Health and Physical Education:
  + Focused fitness a K-12 program
* English and Literature:
  + Dealing with:
    - Fundamentals of building language capacity
    - Expansion of genre studies
  + There is a current lack of language capacity building through speech
  + Four language modalities:
* Reading
* Writing
* Speaking
* Listening
  + Purpose of teaching English:
    - Making meaning of ideas and information through exposure and critical response to literature and nonfiction test
    - Creating meaning for themselves and others
    - Exposure to contemporary genres
  + Cinema works can enhance the curriculum and possibly link it to other subjects
  + Do not view films passively
  + Create your own Web Quest
  + Contact author’s through their websites
  + Learning languages alters perspective, expands our native language, and lets us learn at least on additional world culture
  + Knowledge of world languages is critical to global perspective
* Mathematics:
  + Mathematics in the US focuses on memorization instead of reasoning
  + Understanding Mathematics requires language capabilities on the part of the learner
  + American culture does not visibly or aggressively support mathematics genius
  + Mathematic requires regular opportunities for inquiry and application
* The Arts
  + The curriculum should give the learner the:
    - Ability to take in and receive meaning and insight from artwork and performance
    - Ability to express and generate meaning and insight through artwork and performance

**Additional Information:**

Text:

*Ideas that Changed the World*

Websites:

http://[www.usgs.gov](http://www.usgs.gov)

http://[www.progonos.com/furuti/MapProj/Normal/TOC/cartTOC.html](http://www.progonos.com/furuti/MapProj/Normal/TOC/cartTOC.html)

http://[www.giss.nasa.gov/tools/gprojector/](http://www.giss.nasa.gov/tools/gprojector/)

https://www.cia.gov/library/publications/the-world-factbook/index.html

<http://www.earth.google.com>

http://www/O’DTmaps.com

<http://www.acsa.edu.au>

http://www.princeton.edu/integrating science

<http://www.ncrrsepa.org>

http:www.its-about-time.com

<http://www.focusedfitness.com>

<http://www.googlelittrips.org>

<http://www.nced.ed.gov/timss/results07_math07.asp>

<http://artsedge.kennedy-center.org>

http://www.coolcleveland.com

**Chapter 4: New School Versions: Reinventing and Reuniting School Program Structures**

* Platform = a systematic, inter-connected change in all functions rather than a small adjustment
* Version = when a group of leaders elect to make significant and concerted changes to their existing school program
* Two important ideas:
  + Form should always follow function
  + The whole is the sum of the parts
* Questions we should be asking about curriculum and instruction:
  + What type of both long-term and short-term schedules will best support our specific learners?
  + What various ways of grouping learners will assist them in their learning experiences?
  + How should the faculty be configured to best serve students and to assist one another?
  + In what ways can both physical and virtual space be created and used to support our work?
* Time:
  + Begin by matching time frames to tasks
  + Teaching teams within the curriculum
  + Look at time for in depth studies
  + Open opportunities to create interactive sessions
  + No bells
  + No blocks of time
  + Allows for innovation and instruction in six areas:
    - Learning in the Real World
    - Advisory and Assessment
    - Applied Academics and Assessment
    - College Transition Programs
    - Health and Wellness
    - Travel Opportunities
  + Virtual Learning Magnet is an example of this program
* Student Grouping:
  + Institutional grouping:
    - Gender
    - Age
    - Developmental spans
    - Function
    - Proficiency based
  + Instructional grouping:
    - Constant skill grouping
    - Changing skill grouping
    - Cooperative groups
    - Competitive groups
    - Individualized work
  + Independent grouping:
    - Clubs
    - Online courses
    - Internships
    - Work experiences
    - Travel abroad
    - Community service and projects
* Professional Groupings:
  + Departments
  + Grade levels
  + Building levels
* Expanded Professional Groupings:
  + Vertical teams K-12
  + Vertical strategic teams like k-2, 3-7, 8-11, etc.
  + Cross-disciplinary teams
  + Internship supervisors
  + Task force study groups constructed around issues, books, new directions, etc.
  + Data analysis teams
  + State education network team
  + National network team
  + Global peer coaching team
  + Global network team
* Physical and Virtual Space:
  + Where it is located and sets up internal structures determines possibilities
  + Focus should be on how to best support engagement on the part of the learner
    - Architecturally:
      * Who are we serving?
      * How can we best me their needs?
* Create a flow chart that shows the flow of decisions about the basic school structures and how they directly affect the curriculum that reaches the student

**Additional Information:**

Websites:

http://www.ccsso.org.projects/wirtual\_learning\_magnet/

http://www.sas.upenn.edu/lps/commons

http://www.designshare.com

**Chapter 5: Five Socio-Technology Trends That Change Everything in Learning and Teaching**

* All learning is social
* The power of social production is to create information and knowledge artifacts
* Participatory culture means learning takes on a more active role rather than the traditional passive mode
* Open-source social production is routinely applied to designing, organizing, producing, marketing and supporting products and services
* Learning by doing
* Social networking – tools to enhance the process of learning to be, of defining our identities
* Electronic portfolios are increasingly important for potential employers and university admissions offices
* Social networks do pose a risk
* There is ample evidence that the informal learning gained from social interactions and peer-mediation learning is substantial
* Semantic (read/write) Web improves search, collaboration and publishing
* Gaming embeds:
  + Disciplined mind
  + Synthesizing mind
  + Creative mind
  + Respectful mind
  + Ethical mind
* Virtual worlds engage in familiar real-world activities

**Chapter 6: A Classroom as Wide as the World**

* Education must prepare students for a world where the opportunities for success require the ability to compare and cooperate on a global scale
* We have a gap in both global knowledge and global achievement
* Five global trends:
  + Economics
    - Future growth will be in overseas markets so students must have international competence
  + Science and technology
    - More things will be made in global supply chains
  + Demographics
    - Life in the US involves interacting and working with individuals from vastly different backgrounds and cultures
  + Security and citizenship
    - What we do affects others and the actions of other affect us
    - Our security is intertwined with our understanding of other cultures
  + Education
    - There is a growing global talent pool
    - US students lag behind in knowledge of other countries and cultures
    - Learning a second language is standard in other countries
    - International knowledge and skills are not a luxury with the competitive global job market
    - We have citizenship in the interconnected world
    - Our students must graduate from high school college-ready and globally competent prepared to compete, connect and cooperate
    - Standardized tests do not measure the thinking and complex communication skills that equal success in college or the global skills needed for the knowledge –driven global economy
    - We must provide relevant and engaging global content and connections to give students global knowledge, skills and perspectives for the 21st century
* Global learning:
  + Knowledge of other world religions, cultures, economics, and global issues
  + Skills to communicate in languages other than English
  + To work in cross-cultural teams
  + To assess information from different sources around the world
  + Values of respect for other cultures
  + Disposition to engage responsibly in the global context
* Key common elements for globally oriented schools:
  + Create a global vision and culture by revising their mission statements and graduate profiles
  + Creating a school culture that supports internationally focused teaching and leaning
  + Develop an internationally oriented faculty by recruiting teachers with international interests
  + Encouraging teachers to take advantage of the many professional development and study/travel opportunities offered
  + Integrate international content into all curriculum areas
  + Bring a global dimension to all areas
  + Emphasize the learning of world languages
  + Include less commonly taught languages
* Globally connected schools can:
  + Harness technology to tap global information sources, create international collaborations and offer international courses online
  + Expand learning time to give students more time and support to achieve global skills
  + Expand student experiences through internationally oriented travel, service learning, internships, partnerships and exchanges with other schools in other countries
* State Roles in creating a framework for systematic change should include:
* Redefining high school graduation requirements to include global knowledge and skills
* International benchmarking of state standards
* Making world languages a core part of the curriculum from grades 3 to 12
* Increasing the capacity of educators to teach the world
* Using technologies to expand global opportunities
* National ways to create learning environments:
* Provide states with incentives to benchmark their educational systems and standards against other countries
* Support initiatives to redesign middle and high schools, raise high school graduation rates and make secondary students college-ready and globally competent
* Investing in education leaders and teachers knowledge of international dimensions of their subjects
* Building national capacity in world languages from K-college
* Expanding federal programs that support engagement of US students with the rest of the world

**Additional Information:**

Websites:

<http://www.asiasociety.org>

**Chapter 7: Making Learning Irresistible: Extending the Journey of Mabry Middle School**

* How do educators move from a low-level mindset of making good grades to personally experiencing the excitement that is the essence of learning
* Adequate thinking time is essential to the change process
* Spending time as educators together has significant outcomes
* Question – To what extent are our students authentically engaged in their own learning?
* In an authentically engaged classroom:
  + More participation from students
  + Products are not just knowledge driven but are contribution in nature
  + Students take greater ownership
  + Products are made public
  + Teachers role is to help students maintain focus on learning objectives NOT teach technology
  + Teachers help guide the unraveling and exploration of complex issues not just the facts
  + Work is done outside as well as inside the classroom
  + Teams of parents, students and teachers review the work as it unfolds
  + Students have a global voice and begin to connect in meaningful ways on a planetary scale
  + Students produce work that matters to them and work that they are genuinely proud of

**Additional Information:**

Websites:

<http://www.MabryOnline.org>

**Chapter 8: Media Literacy: 21st Century Literacy Skills**

* “Digital natives” know how to:
  + Upload, download and remix music, photos, videos, and movies
  + Text and instant message using mobile phones and other handheld devices
  + Connect and communicate via social networking Web sites
  + Operate digital still and video cameras
  + Edit and post online videos
  + Create blogs, podcasts, video games, digital productions, and graphic novels
  + Participate in virtual reality games and forums
* Schools need to not only recognize that students are fascinated with new media and technology but also teach them how to analyze, evaluated and make use of them appropriately
* Teachers must be taught how to use the new media tools to connect with their student in all subject areas
* NCLB causes teachers to focus on lesson that complete and teach testable standards
* School should be encourages to:
  + Collaborate
  + Have teamwork
  + Make global connections
  + Explore critical thinking
  + Explore media literacy
* Five Core Concepts of Media Literacy:
  + All media messages are constructed
  + Media messages are constructed using a creative language with its own rules
  + Different people experience the same media message differently
  + Media have embedded values and points of view
  + Most media messages are organized to gain profit and/or power
* Critical-thinking questions for learners when looking at media messages:
  + Who created or paid for the message?
  + Why was it created?
  + Who is the message designed to reach?
  + How does the message get my attention?
  + In what ways is the message credible?
  + How might others understand this message differently?
  + What values, lifestyles, points of view are included or excluded and why?
  + Where can I get more information, different perspectives, or verify the information?
  + What can I do with this information?
* Media literacy is both analyzing media messages and creating media productions
* Creating Media Products:
  + Understand and utilize the most appropriate media creation tools, characteristics and conventions
  + Understand and effectively use the most appropriate expressions and interpretations in diverse, multi-cultural environments
* Benefits in media literacy:
  + Helps educators meet state teaching standards
  + Allows teachers to bring familiar youth-media culture into the classroom
  + Interdisciplinary and easy to integrate into key elements of the existing/emerging curriculum
  + Inquiry based and consistent with reflective teaching and critical thinking
  + Includes hands-on experiential learning and is consistent with learning styles research
  + Works well in teams and groups, fostering cooperative learning
  + Has been successful in appealing to at-risk students and in improving retention rates
  + Is compatible with SCANS and fosters employment opportunities
  + Connects the curriculum of the classroom to the curriculum of the living room
* Classroom Applications:
  + English/Language Arts
    - Students should be analyzing and creating text in all forms – print and nonprint
    - Writing is a logical place to start for an exploration of media’s role
    - Students should learn scriptwriting and the visual representation process of storyboarding
    - Advertising is a rich are for students to study and produce
    - Film is another rich source
  + Social Studies
    - Campaign Commercials
    - Guidelines on conducting interviews
    - Have good internet sources at hand
  + Heath Education
    - Influenced by what they see on television
    - Need to be guided to what is real
  + Mathematics and Science
    - Numbers in the media
    - Numbers in the news
    - Stereotypes and misconceptions in new and on TV/Movies
* Media Literacy will become widespread when:
  + Teachers demand literacy education
  + Media literacy is taught as a separate class
  + Media literacy is incorporated into all subject areas
  + Schools and districts offer professional development trainings
  + Courses in media and technology are incorporated along with production and creation
  + School library media specialists consider media and media literacy for all collections
  + Colleges of education must include media literacy training in teacher prep courses
  + Textbook publishers include media literacy in their publications
  + School consider programs for parents on media literacy awareness

**Additional Information:**

Text:

*Journal of Media Literacy*

*Media Literacy: Key Facts*

*Lesson Plans for Creating Media-Rich Classrooms*

Websites:

<http://www.21stcenturyskills.org>

http://www.marylandpublicschool.org/MSDE/programs/medialit

<http://www.21stcenturyskills.org/index.php?option+com_content&task+view&id+349&Itemid=120>

<http://www.frankwbaker.com>

<http://www.readwritethink.org>

http://www.loc.gov/index.html

<http://www.pbs.org/thewar>

<http://www.commonsensemedia.org/sites/defult/files/CSM_media+health_v2c%20110708.pdf>

<http://www.cdc.gov/tobacco/youth/educational_materials/videos_dvds/index.htm>

<http://www.camy.org>

<http://www.frankwbaker.com/math_in_the_media.htm>

**Chapter 9: Digital Portfolios and Curriculum Maps: Linking Teacher and Student Work**

* Digital Portfolio = a multimedia collection of student work that provides evidence of a student’s skills and knowledge
* Essential questions for portfolios:
  + What should the students know and be able to do? VISION
  + Why do we collect student work? PURPOSE
  + What audiences are important to us? AUDIENCE
  + How can students demonstrate the school vision? ASSESSMENT
  + How do we know what is good? ASSESSMENT
  + What hardware, software, and networking will we need? TECHNOLOGY
  + Who will support the system? TECHNOLOGY
  + When will information be digitized? LOGISTICS
  + Who will do it? LOGISTICS
  + Is the school used to discussing student work? CULTURE
* Portfolios do not include everything a student does in school
* A table of contents is necessary
* The work must be place in some context
* End –of-year reviews serves as public demonstrations
* Presenting work encourages teacher improved assignments and student improved work
* Work from outside school can be included
* Can be used as an ongoing dialogue between teachers and students
* Students using portfolios can create “tours” of their work
* The process of collecting, selecting and reflecting on the work in a portfolio makes it powerful
* Feedback loop = mapping and portfolios
* Learning organization = a place where adjustment to new situations by reacting to data occurs, this should be a CLASSROOM!

**Chapter 10: Educating for a Sustainable Future**

* A practice is not sustainable when it undermines the health of the very systems it depends on and cannot be continued over time
* A practice that is sustainable enhances the health of the systems it depends on by creating favorable conditions for it to thrive
* Our current reality is unsustainable because the system we depend on is out of whack
* We have to learn to live well in our places without undermining their ability to sustain us over time
* Students learn and act upon:
  + Cultural preservation and transformation
  + Responsible local and global citizenship
  + Dynamics of systems and change
  + Sustainable economics
  + Healthy commons
  + Living within ecological and natural laws and principles
  + Inventing and affecting the future
  + Multiple perspectives
  + Sense of place

**Additional Information:**

Websites:

<http://www.cloudinstitute.org>

**Chapter 11: Power Down or Power Up?**

* The problem with these tools is that they can be disruptive to traditional classroom management
* The culture of the classroom must be changed so the technologies will work
* We need to be role models for using technology, information and global communication

**Additional Information:**

Websites:

<http://www.techsmith.com>

<http://www.jingproject.com>

<http://www.mathtrain.tv>

http:// docs.google.com

http:// tinyurl.com/68djoz

<http://www.google.com/coop/cse/>

http:// www.skype.com

http:// dsp109.wikispaces.com/Skype

http:// www.kiva.org

http:// www.bobsprankle.com/podcasts/0506/rm208vodcast.mov

http:// [www.novemberlearning.com](http://www.novemberlearning.com)

**Chapter 12: Creating Learning Connections with Today’s Tech-Savvy Student**

* Educators in the 21st century realize that students entering the classroom today are much different from those who have come before
* It is a critical time to begin looking at what is truly driving change in the 21st century classroom
* It is the STUDENTS
* Students today have the frontal lobe of their brain stimulated by video games, tv’s cell phones, and web-based communications for many hours a day
* Our challenge is to make standardized curriculum rich and relevant to this students who access anything on their own
* Engaging students with what they use outside the classroom will help teachers make strong connections
* Tools for the interactive classroom:
  + Computer to the Big Screen
  + Interactive software
  + Images
  + Web 2.0 Tools
  + Web-based Tools
  + Social-Networking
  + Script writing
* It is not the right answer we should be looking for but the right question
* Ask deeper-level essential questions to better develop problem solving skills

**Chapter 13: It Takes Some Getting Used To: Rethinking Curriculum for the 21st Century**

* Our students are waiting for us to catch up to them in the world of technology
* Learning and Innovation Skills for the 21st century:
* Creativity and innovation
* Critical thinking and problem solving
* Communication and collaboration
* Sixteen vital habits of the mind for success in school, work and life:
  + Persisting
  + Managing impulsivity
  + Listening with understanding and empathy
  + Thinking flexibly
  + Thinking about your thinking
  + Striving for accuracy and precision
  + Questioning and problem posing
  + Applying past knowledge to novel situations
  + Thinking and communicating with clarity and precision
  + Gathering data through all senses
  + Creating, imagining, and innovating
  + Responding with wonderment and awe
  + Taking responsible risks
  + Finding humor
  + Thinking interdependently
  + Remaining open to continuous learning
* We confront a problem by:
  + Developing a plan of action
  + Keeping the pan in mind over a period of time
  + Reflect on and evaluate the plan when implemented
* Mind steps
  1. Be aware of the thinking we are doing by recognizing, identifying and labeling habits we use to be productive thinkers
  2. Understand the strategies we are using
  3. Shifts in thinking from descriptive to analytical thinking to evaluative thinking and then critical thinking
  4. Thinking become predictive
  5. Taking matters into your own hands by committing to a mindful way of thinking in which you are aware of when habits have been used to their advantage and when they have not
* Teachers need to create classroom that are open to continuous learning and make sure there are many opportunities for coaching and formative assessment
* Administrators must also demonstrate their willingness to remain open to continuous learning by accepting what they know and why they need to know
* School board members must also adopt these habits for themselves
* Three major decisions that need to be made about changing our curriculum:
  + What should be taught (goals and outcomes)
  + How do we organize and teach toward these goals (instruction)
  + How might we know if these goals are being achieved (assessment)
* Mind Shifts needed to change the curriculum:
  + From knowing the right answers to knowing how to behave when the answers are not readily apparent
  + From transmitting meaning to constructing meaning
  + From external evaluations to self-assessment
* Growth and change are found in disequilibrium, not balance